REMARKS

In the Office Communication dated June 13, 2008, the U.S. Patent and Trademark Office (hereinafter "the Patent Office") contends that the application does not comply with the requirements of 37 CFR § 1.821 through 1.825 pertaining to patent applications containing nucleotide sequence and/or amino acid sequence disclosures. In particular, the Patent Office contends that the specification recites sequences in the specification without an assigned SEQ ID No.

In response, applicants respectfully submit that a Response to Sequence Listing Requirement was filed on February 20, 2001, followed by a Supplemental Response to Sequence Listing Requirement on February 27, 2001, in response to an Office Communication of December 5, 2000. Similar to the instant Office Communication, the Office Communication of December 5, 2000 also alleged that the instant application did not comply with the requirements of 37 CFR § 1.821 through 1.825. The responses of February 20, 2001 and February 27, 2001 included amendments to the specification to add SEQ ID NOs. as well as sequence listings, both on paper and in computer readable format. Applicants submit herewith copies of the previously filed responses, as downloaded from the Patent Office Patent Application Information Retrieval (PAIR) system.

As such, applicants respectfully submit that the previously filed responses of February 20, 2001 and February 27, 2001 are believed to address the alleged deficiencies in the specification set forth in the instant Office Communication. Accordingly, the instant application is believed to be in compliance with 37 CFR § 1.821 through 1.825.

CONCLUSION

In light of the above remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

DEPOSIT ACCOUNT

The Commissioner is hereby authorized to charge any additional fees associated with the filing of this correspondence to Deposit Account No. **23-1665**.

Respectfully submitted,

WIGGIN and DANA LLP

Date: 21 July 2008

By: Todd E. Garabedian

Todd E. Garabedian, Ph.D.
Registration No. 39,197
Attorney for Applicants

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PRINCIPALS OF THE FIRM

TELEFAX CONTROL SHEET

SENT TO: Carolyn

DATE SENT: March 15, 2002

SUBJECT: USSN - 09/429,331 Our Ref.: Paige=ID

No. of pages (including this cover sheet): 125

FROM: Lisa Staley for Iver Cooper

Remarks: Attached are the following:

1) 2/20/01 Response to Sequence Listing... and postcard receipt;
2) 2/27/01 Suppl. Resp. to Sequence Listing... and postcard receipt.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: PAIGE et al

Application No.: 09/429,331

Filed: October 28, 1999

For: METHOD OF PREDICTING THE ABILITY OF ...

Art Unit: 1627

Examiner: T. Wessendorf

Washington, D.C.

Atty.'s Docket: PAIGE=1D

Date: February 20, 2001

THE COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

Sir:

Transmitted herewith is a [ ] Amendment [XX] Response to "Sequence Listing" Requirement with Sequence Listing and Disk and revised pages 239, 244-251, 266-268, 270, and 272

in the above-identified application.

[ ] Small Entity Status: Applicant(s) claim small entity status. See 37 C.F.R. §1.27.

[ ] No additional fee is required.

[XX] The fee has been calculated as shown below:

	(Col. 1) CLAIMS REMAINING AFTER AMENDMENT		(Col. 2) HIGHEST NO. PREVIOUSLY PAID FOR	(Col. 3) PRESENT EXTRA EQUALS
TOTAL	*	MINUS	** 20	0
INDEP.	*	MINUS	*** 3	0
FIRST PRESENTATION OF MULTIPLE DEP. CLAIM				

SMALL ENTITY RATE	ADDITIONAL FEE	OR	OTHER THAN SMALL ENTITY RATE	ADDITIONAL FEE
x 9	$		x 18	$
x 40	$		x 80	$
+ 135	$		+ 270	$
ADDITIONAL FEE TOTAL	$	OR	TOTAL	$

* If the entry in Col. 1 is less than the entry in Col. 2, write "0" in Col. 3.

** If the "Highest Number Previously Paid for" IN THIS SPACE is less than 20, write "20" in this space.

*** If the "Highest Number Previously Paid for" IN THIS SPACE is less than 3, write "3" in this space.

The "Highest Number Previously Paid For" (total or independent) is the highest number found from the equivalent box in Col. 1 of a prior amendment of the number of claims originally filed.

[XX] Conditional Petition for Extension of Time

If any extension of time for a response is required, applicant requests that this be considered a petition therefor.

[XX] It is hereby petitioned for an extension of time in accordance with 37 CFR 1.136(a). The appropriate fee required by 37 CFR 1.17 is calculated as shown below:

Small Entity
Response Filed Within
[ ] First - $ 55.00
[ ] Second - $ 185.00
[ ] Third - $ 445.00
[ ] Fourth - $ 695.00
Month After Time Period Set

Other Than Small Entity
Response Filed Within
[ ] First - $ 110.00
[XX] Second - $ 390.00
[ ] Third - $ 890.00
[ ] Fourth - $ 1390.00
Month After Time Period Set

[ ] Less fees ($_____) already paid for ___ month(s) extension of time on _____.

[ ] Please charge my Deposit Account No. 02-4035 in the amount of $_____.

[XX] Credit Card Payment Form, PTO-2038, is attached, authorizing payment in the amount of $390.00.

[ ] A check in the amount of $_____ is attached (check no.).

[XX] The Commissioner is hereby authorized and requested to charge any additional fees which may be required in connection with this application or credit any overpayment to Deposit Account No. 02-4035. This authorization and request is not limited to payment of all fees associated with this communication, including any Extension of Time fee, not covered by check or specific authorization, but is also intended to include all fees for the presentation of extra claims under 37 CFR §1.16 and all patent processing fees under 37 CFR §1.17 throughout the prosecution of the case. This blanket authorization does not include patent issue fees under 37 CFR §1.18.

BROWDY AND NEIMARK
Attorneys for Applicant(s)

By: _____
Iver P. Cooper
Registration No. 28,005

Facsimile: (202) 737-3528
Telephone: (202) 628-5197

(NOA)

APPLICANT(S): PAIGE et al

APPLICATION NO: 09/429,331

DOCKET NO.: PAIGE-1D

CONF. NO: _____

THE PATENT AND TRADEMARK OFFICE STAMP HEREON ACKNOWLEDGES RECEIPT OF THE FOLLOWING PAPERS:

RECEIVED
[illegible]

- ☑ FEES $ 390.00
  - ☑ PTO FORM 2038 ☐ (CH. # _____)
- ☑ EXTENSION OF TIME (2 MONTHS)
- ☑ TRANSMITTAL LETTER
- ☐ MISSING PARTS RESPONSE WITH DECL
- ☐ AMENDMENT
  - ☐ PRELIMINARY ☐ SUPPLEMENTAL
- ☑ REPLY TO OFFICE ACTION
- ☐ RESTRICTION/ELECTION REPLY
- ☑ SEQUENCE LISTING ☑ WITH DISK
- ☐ RCE / CPA TRANSMITTAL (circle one)
- ☐ NOTICE OF APPEAL
- ☐ APPEAL BRIEF (TRIPLICATE)
- ☐ REPLY BRIEF (TRIPLICATE)
- ☐ ASSIGNMENT
- ☐ INFORMATION DISCLOSURE STATEMENT
  - ☐ FORM 1449 & _____ PATENTS/PUBS
- ☐ PRIORITY DOCUMENT(S) NO. _____
- ☐ DECLARATION UNDER § _____
- ☐ LETTER TO DRAFTSMAN
  - ☐ _____ SHEETS OF DRAWINGS
- ☐ ISSUE FEE TRANSMITTAL FORM
- ☐ MAINTENANCE FEE LETTER
- ☑ OTHER revised pages 239, 244-251, 266-268, 270 and 272; Copy of Notice to Comply

B&N-2

HAND-CARRY

Application No.: 09/429331

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

☒ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.

☒ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).

☒ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).

☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked-up "Raw Sequence Listing."

☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).

☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).

☐ 7. Other: _____

Applicant Must Provide:

☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".

☒ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.

☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216
For CRF Submission Help, call (703) 308-4212
For PatentIn software help, call (703) 308-6856

PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR RESPONSE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	ART UNIT: 1627
PAIGE et al	Examiner: T. Wessendorf
Appln. No.: 09/429,331	Washington, D.C.
Filed: October 28, 1999	February 20, 2001
For: METHOD OF PREDICTING THE ABILITY OF COMPOUNDS TO MODULATE THE BIOLOGICAL ACTIVITY OF RECEPTORS	Atty.Docket: PAIGE=1D

RESPONSE TO "SEQUENCE LISTING" REQUIREMENT

Honorable Commissioner of Patents
Washington, D.C. 20231

Sir:

In response to the Notice to Comply, mailed December 5, 2000, petition for a two-month extension of time and payment of late fees attached hereto, please amend the application as follows:

IN THE SPECIFICATION

Page 132, line 14, before "biotin" insert --(SEQ ID NO:1)--.

Page 136, line 26, after "...CTGCG" insert --(SEQ ID NO:3)--;

line 27, after "...ACCTA" insert --(SEQ ID NO:4)--.

In re Appln. No. 09/429,331

Page 150, line 22, after "...GTCAG" insert

--(SEQ ID NO:5)--;

line 25, after "...GTCAG" insert

--(SEQ ID NO:6)--;

line 28, after "...GTCAG" insert

--(SEQ ID NO:7)--;

line 31, after "...GTCAG" insert

--(SEQ ID NO:8)--;

line 33, after "...TCGAG" insert

--(SEQ ID NO:9)--.

Page 162, line 33, after "...CAGT-3'" insert

--(SEQ ID NO:14)--;

line 36, after "...TAGA-3'" insert

--(SEQ ID NO:15)--.

Page 173, line 26, after "...SLLSR" insert

--(SEQ ID NO:187)--.

Page 183, line 6, after "SRLXXLL" insert

--(SEQ ID NO:2)--.

Page 225, line 4, after "...KQAV" insert

--(SEQ ID NO:10)--;

line 5, after "...GVSR" insert

--(SEQ ID NO:11)--;

line 6, after "...MLSR" insert

--(SEQ ID NO:12)--;

line 7, after "...YASR" insert

In re Appln. No. 09/429,331

--(SEQ ID NO:13)--.

Page 238, line 2, after "...GHSR" insert

--(SEQ ID NO:59)--;

line 3, after "...WRSR" insert

--(SEQ ID NO:60)--;

line 4, after "...KDSR" insert

--(SEQ ID NO:61)--.

Attached are copies of pages 239, 244-251, 266-268, 270, and 272 in which sequence identifiers are marked in red. Entry of these revisions is respectfully requested.

Please enter the enclosed "Sequence Listing", pages 1-79.

REMARKS

1. Applicants hereby submit the following:

[XX] a paper copy of a "Sequence Listing", complying with §1.821(c), to be incorporated into the specification as directed above;

[ ] an amendment to the paper copy of the "Sequence Listing" submitted on , the amendment being in the form of substitute sheets;

[XX] the Sequence Listing in computer readable form, complying with §1.821(e) and §1.824, including, if an amendment to the paper copy is submitted, all previously submitted data with the amendment incorporated therein;

[ ] pursuant to §1.821(e), reference is made to the computer readable form filed on , in USSN , which presents the identical Sequence information, the use of which is now requested, in lieu of submitting a new computer readable form; and/or

[ ] a substitute computer readable form to replace one found to be damaged or unreadable.

[XX] 2. The description has been amended to comply with §1.821(d).

3. The undersigned attorney or agent hereby states as follows:

(a) this submission is not believed to include new matter [§1.821(g)];

(b) the contents of the paper copy (as amended, if applicable) and the computer readable form of the Sequence Listing, are believed to be the same [§1.821(f) and §1.825(b)];

(c) if the paper copy has been amended, the amendment is believed to be supported by the specification and is not believed to include new matter [§1.825(a)]; and

(d) if the computer readable form submitted herewith is a substitute for a form found upon receipt by the PTO to be damaged or unreadable, that the substitute data is believed to be identical to that originally filed [§1.825(d)].

Respectfully submitted,

BROWDY AND NEIMARK
Attorneys for Applicant(s)

By: _____
Iver P. Cooper
Registration No. 28,005

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624 Ninth Street, N.W.
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Telephone No.: (202) 628-5197
Facsimile No.: (202) 737-3528
F:\,N\Nova\PaigeID\Pto\SequenceResponse.doc

Table 3: Phage/Peptide Classification

	SEQ ID NO:	# and isolation method	
Class 1			
S S N H Q S S R L I E L L S R	62	#4	ER + estradiol
S R L K E L L L L P T D L S R	63	#15	ER + estradiol
S S K L Y C L L D E S Y C S R	64	#35	ER + estradiol
H G P L T L N L L R S S G G	65	#41	ER + estradiol
S R L E Y W L K W E P G P S R	66	#12	ER + estradiol
Class 2			
S S C K W Y E K C S G L W S R	67	#7	ER
S S E Y C F Y W D S A H C S R	68	#33	ER + estradiol
S S W V L L R D L P W G S R	69	#31	ER
S S W V R L S D F P W G V S R	70	#24	ER + estradiol
Class 3			
S S L T S R D F G S W Y A S R	71	#5	ER + estradiol
Class 4			
S R T W E S P L G T W E W S R	72	#13	ER
Class 5			
S A A C A T I S H Y L M G G	73	#48	ER

Table 7: New Erα Peptide Sequences Immobilized on Plastic

Peptide name	Peptide Sequence	SEQ ID NO	Isolated in the presence of receptor form	SERM present when peptide was identified
1PT	SRNLCFFWDDEYCSR	74	α	Tamoxifen & ICI 182,780
2PT	SWDMHQFFWEGVSR	75	α	Tamoxifen
3PT	SRWHGTLFWQDEQSR	76	α	Tamoxifen
4PT	SSCKWYEKCSGLWSR	77	α	Tamoxifen & ICI 182,780
5PT	SSRMGHVWYDWTFSR	78	α	Tamoxifen
6PT	SSRLLGDFGGSVVSR	79	α	Tamoxifen
7PT	SSKYVFGFQVAGGSR	80	α	Tamoxifen
8PT	SSWAGIKFGKPPHSR	81	α	Tamoxifen
9PT	SSSWSYGKPTFLSSR	82	α	Tamoxifen
10PT	SRDTGDMWWGRGGSR	83	α	Tamoxifen
11PT	SSGRYDPFVLNAASR	84	α	Tamoxifen
12PT	SSSPWWSFNLRDMSR	85	α	Tamoxifen
13PT	SSWPYLPKREEWASR	86	α	Tamoxifen
14PT	SSGWIEQKLRGSFSR	87	α	Tamoxifen
15PT	SSSATSIKVQYQISR	88	α	Tamoxifen
16PT	SSYLTLGKSMMAISR	89	α	Tamoxifen
17PT	SSWHSRWDLALGFSR	90	α	Tamoxifen
18PT	SSGYWGGWDYGAGSR	91	α	Tamoxifen
19PT	SRDNCGAGLWAGCSR	92	α	ICI 182,780
1PI	SSSTPGWWEWDWASR	93	α	ICI 182,780
2PI	SSYWDGSWRRKETCVSCSR	94	α	ICI 182,780
3PI	SSRTAEDYCFFADDYWCSR	95	α	ICI 182,780
4PI	SSRALALFPVGMESR	96	α	ICI 182,780
5PI	SSDCESLTSYPHLKALCSR	97	α	ICI 182,780
6PI	SSTATALRDRLAYSR	98	α	ICI 182,780
7PI	SSGKTREHYREGTSR	99	α	

Table 8: New ERα-ERE Peptide Sequence Information

Peptide name	Peptide Sequence	SEQ ID NO.	Isolated in the presence of receptor form	SERM present when peptide was identified
E1-1	HSHNHHSPWLFRLLGG	100	α	Estradiol
E1-3	HSHPHHSHLLYKLMGG	101	α	Estradiol
E1-4	HSHPLPPLLSRLLTGG	102	α	Estradiol
E1-7	SRLTCLLQSNGWDSEQCSR	103	α	ICI
I4-10	SSLTSRDFGSWYASR	104	α	Tamoxifen
T3-1	SRTLQLDWGTLYSR	105	α	Tamoxifen
T1-10	SRLPPSVFSMCGSEVCLSR	106	α	Tamoxifen
T2-10	SRFEIWKPEPGCVSSLENWE PGKRVCSR	107	α	Tamoxifen
T3-11	SRVFGVSGGEVVLINGSSR	108	α	Raloxifen
1R	SRLCFGDWCMLGGVDVLSR	109	α	Raloxifen
2R	SSLNMVVDTPWCGKWVCSR	110	α	Buffer
3B	SSRPDAAFFGAKLSR	111	α	Buffer
4B	SSRPSRSFWEKQLSR	112	α	Buffer
5B	SSRPTAEWFRENLSR	113	α	Buffer
6B	SRWWDTSWWLEELSR	114	α	Buffer
1B	SSRIADLFWRLEPSR	115	α	Buffer
7B	SRSYHGEWGVWTLSR	116	α	Buffer
10B	SSDWCFGWGGWCASEAVSR	117	α	Estradiol
9B	SRNWDWAALELLPYPHPSR	118	α	Estradiol
1E	SSLTSRDFGSWYASR	119	α	Estradiol
2E	SRSPILTHLLSLGSR	120	α	Estradiol
3E	SSTGILWKLLTAESR	121	α	Estradiol
9E	SSHGILWRLLSEGSR	122	α	Estradiol
11E	SRSDSILWRMLSESR	123	α	Estradiol
4E	SRLVALLKSPWSVSR	124	α	Estradiol
5E	SRLEELLLMDFWRSR	125	α	Estradiol
6E	SSKLWQLLSSPIDSR	126	α	Estradiol
14E	SSKLYCLLDESYCSR	127	α	

7E	SRSLLMDMLMSDDYVTVSR	128	α	Estradiol
8E	SSRLLACELMYEDADVCSR	129	α	Estradiol
15E	HSHSPLLMALLAPPGG	130	α	Estradiol
10E	SRLEYYLRLGTYESR	131	α	Estradiol
13E	SSCLREILLYGACSR	132	α	Estradiol
16E	SSRTAEDYCFFADDYWCSR	133	α	Estradiol
17E	SSLRCYLSSSKVDQWACSR	134	α	Estradiol
18E	SSYKPHSLLEWHLLGGTSR	135	α	Estradiol

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Table 9: New ERβ-ERE Peptide Sequence Information

Peptide name	Peptide Sequence	SEQ ID NO:	Isolated in the presence of receptor form	SERM present when peptide was identified
1B-β	SRLHCLLDSSYCSSR	136	β	Buffer
2B-β	SRLHCLLDSSYCSSR	137	β	Buffer
3B-β	SSWPNPTFWERQLSR	138	β	Buffer
4B-β	SYSKEWFEERLNSR	139	β	Buffer
5B-β	SSSMMREFFERELSR	140	β	Buffer
6B-β	SSGLPPNFERMLKSR	141	β	Buffer
7B-β	SSGPWLMHYLGGGSR	142	β	Buffer
8B-β	SSTSWLHHYLMGTSR	143	β	Buffer
9B-β	SRGGGECLGPWCLSR	144	β	Buffer
12B-β	SSEACVGRWMLCEQLGVSR	145	β	Buffer
14B-β	SSQVWPGPWRLVESR	146	β	Buffer
16B-β	SSSLGPWRLSELESR	147	β	Buffer
17B-β	SSSGPWRWGLSIESR	148	β	Buffer
18B-β	SRECVGGWCLAELSR	149	β	Buffer
19B-β	SSIPPRSWWLSQLSR	150	β	Buffer
20B-β	SSWPGAEWFKEQLSR	151	β	Buffer
21B-β	SSKLYCLLDESYCSR	152	β	Buffer
23B-β	HSYSSHPLLLSYLWGG	153	β	Buffer
24B-β	HSWLGPWRLSSIDLGG	154	β	Buffer

				Buffer
			β	
25B-β	HSTDMGWLRPWRLLGG	155	β	Tamoxifen
1T-β	SSVFTIMDGKVALSR	156	β	Tamoxifen
2T-β	SRPYCLGDVWCLDSR	157	β	Tamoxifen
4T-β	SREWEDGFGGRWLSR	158	β	Tamoxifen
5T-β	SSWNSREFFLSQLSR	159	β	Tamoxifen
6T-β	SSTTMFDFFYERLSR	160	β	Tamoxifen
7T-β	SSARPWWLQFEGSSR	161	β	Tamoxifen
8T-β	SSQEEWLLPWRLASR	162	β	Tamoxifen
9T-β	SRLPPSVFSMCGSEVCLSR	163	β	Tamoxifen
10T-β	SSGPFYVGGMLWPADCLSR	164	β	Tamoxifen
12T-β	SREGWMGPWRLADSR	165	β	Tamoxifen
13T-β	SRNECIGPWCLTISR	166	β	Tamoxifen
14T-β	SSPGSREWFKDMLSR	167	β	Tamoxifen
15T-β	SSVASREWWVRELSR	168	β	Tamoxifen
16T-β	SRMFQVCGDEVCLRSR	169	β	Tamoxifen
17T-β	SSDLHRDCLGVWCLSR	170	β	Tamoxifen
18T-β	SRLNGVFCHDSSDLWVCSR	171	β	Tamoxifen
20T-β	SRPGCLRGVWCLADTPISR	172	β	Tamoxifen
21T-β	SSRLVPHSFWLDGLMHQSR	173	β	Tamoxifen
22T-β	SSISTYHMGEWFYAMLSSR	174	β	Tamoxifen
23T-β	SSDLYSQMREFFQNLSR	175	β	Tamoxifen
1E-β	SSRGLLWDLLTKDSR	176	β	Estradiol

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	2E-β	SRHGILWDLLQGDSR 177	β	Estradiol
	3E-β	SRLHDLLLRDESPSR 178	β	Estradiol
	4E-β	SRDWRSGFLYELLSR 179	β	Estradiol
	5E-β	SSDTRSRLYELLSSSYTSR 180	β	Estradiol
	6E-β	SRLEELLRVGVLTSR 181	β	Estradiol
5	7E-β	SRLEDLLRGDSKPQSR 182	β	Estradiol
	8E-β	SSPTGHRLLESLLLNSNSR 183	β	Estradiol
	9E-β	SSILERLLGGGSAETV 184	β	Estradiol
	10E-β	SRSPILWHLLQDGSR 185	β	Estradiol
	11E-β	SSRTPILFSLLETSR 186	β	Estradiol
10	12E-β	SSIKDFPNLISLLSR 187	β	Estradiol
	13E-β	SSGSSAGRLMMLLQDGVSR 188	β	Estradiol
	14E-β	SREGLLMRLLIGDSR 189	β	Estradiol
	15E-β	SSHCHTRLCSLLTSR 190	β	Estradiol
	16E-β	SSRLLCLLDAGQCSR 191	β	Estradiol
15	17E-β	SRNLLCLLDQEACSR 192	β	Estradiol
	18E-β	SSLKCLLNSNFCSR 193	β	Estradiol
	19E-β	SSLKCLLQSSPQKQPFCSR 194	β	Estradiol
	20E-β	SSRTLLEHYLLGGSR 195	β	Estradiol
	21E-β	SSAGLLEDMLRSRSR 196	β	Estradiol
20	22E-β	SSRCSSLLCEMLIQTKESR 197	β	Estradiol
	23E-β	SSLQAGSWLMHYLRGGDSR 198	β	Estradiol

	SRPEGSSWLLHYLSR	199	β	Estradiol
24E-β	SSRTLLEHYLLGGSR	200	β	Estradiol
25E-β	SRWWLDDHELLLYSSR	201	β	Estradiol
26E-β	SSRTLYCHLTSSNPEWCSR	202	β	Estradiol
27E-β	SSTRLMCWLGSADTSHCSR	203	β	Estradiol
28E-β	SSYDWQCPSWYCPAPPSSR	204	β	Estradiol
29E-β	SSTTWRCPEWYCGSR	205	β	Estradiol
30E-β	SSWDFRVPWWYNNSR	206	β	Estradiol
31E-β	SSQWQAPWWYIDASR	207	β	Estradiol
32E-β	SSRPSFTIPWWFDDPSRSR	208	β	Estradiol
33E-β	SSYEIPKWALQWLSR	209	β	Estradiol
34E-β	SSLDLSQFPMTASFLRESR	210	β	Estradiol
35E-β				

250

5

10

Table 10: Panel Peptides for Example 2

α/β I, SSNHQSSRLIELLSR (AB1) [17β-estradiol] (SEQ ID NO: 211)
α/β II, SAPRATISHYLMGG (AB2) [no modulator] (SEQ ID NO: 212)
α/β III, SSWDMHQFFWEGVSR (AB3) [4-OH tamoxifen] (SEQ ID NO: 213)
α/β IV, SRLPPSVFSMCGSEVCLSR (AB4) [same] (SEQ ID NO: 214)
α/β V, SSPGSREWFKDMLSR (AB5) [same] (SEQ ID NO: 215)
α I, SSEYCFYWDSAHCSR (A1) [17β-estradiol] (SEQ ID NO: 216)
α II, SSLTSRDFGSWYASR (A2) [17β-estradiol] (SEQ ID NO: 217)
α III, SRTWESPLGTWEWSR (A3) [no modulator] (SEQ ID NO: 218)
β I, SREWEDGFGGRWLSR (B1) [4-OH tamoxifen] (SEQ ID NO: 219)
β II, SSLDLSQFPMTASFLRESR (B2) [17β-estradiol] (SEQ ID NO: 220)
β III, SSEACVGRWMLCEQLGVSR. (B3) [no modulator] (SEQ ID NO: 221)

Alternative name parenthesized. Modulator used to isolate peptide in brackets.

Table 100

A

																	SEQ ID NO:
																	222
				S	R	A	G	L	L	S	D	L	L	E	G	K	S R 223
				S	S	R	S	L	L	R	D	L	L	M	V	D	S R 224
				S	S	N	K	L	L	Y	N	L	L	K	M	E	S R 225
				S	S	K	S	L	L	L	N	L	L	S	T	P	S R 226
			H	S	F	P	R	E	S	L	L	V	R	L	L	Q	G G 227
								S	R	L	E	M	L	L	R	S	E T D F S R 228
								S	R	L	E	E	L	L	K	W	G S V T S R 229
								S	R	L	E	Q	L	L	K	E	E F S Y S R 230
								S	R	L	E	Q	L	L	R	S	E P D F S R 231
								S	R	L	E	D	L	L	R	A	P F T T S R 232
								S	R	L	E	S	L	L	R	F	G Q L D S R 233
							S	S	R	L	L	S	L	L	V	G	D F N S R 234
								S	R	L	E	E	L	L	L	G	T N R D S R 235
								S	R	L	E	E	L	L	L	M	D F W R S R 236
								S	R	L	K	E	L	L	L	L	P T D L S R 237
								S	R	L	E	C	L	L	E	G	R L N C S R 238
							S	S	K	L	Y	C	L	L	D	E	S Y C S R 239
								S	R	L	S	C	L	L	M	G	F E D C S R 240
							S	S	K	L	I	R	L	L	T	S	D E E L S R 241
							S	S	R	L	M	E	L	L	Q	E	G Q G W S R 242
			S	S	N	H	Q	S	S	R	L	I	E	L	L	S	R
								S	S	R	L	I	E	L	L	A	S T D T S R 243
								S	S	R	L	W	Q	L	L	S	S P I D S R 244
								S	S	K	L	W	Q	L	L	S	S P W S V S R 245
									S	R	L	V	A	L	L	K	S P S R 246
						S	S	N	S	M	L	W	K	L	L	A	A P S R 247
							S	S	K	T	L	W	R	L	L	E	G E R S R 248
					S	R	A	G	P	V	L	W	G	L	L	S	E S R 249
						S	R	S	P	I	L	T	H	L	L	S	L G S R 250
						S	S	T	G	I	L	W	K	L	L	T	A E S R 251
						S	S	H	G	I	L	W	R	L	L	S	E G S R 252

B

							K	L	V	Q	L	L	T T T A E 252
							I	L	H	R	L	L	Q E G S P 253
							L	L	R	Y	L	L	D K D E K 254
							L	L	Q	Q	L	L	T E 255
							Q	L	S	E	L	L	R G G S G 256
							Q	L	V	L	L	L	H A H K C 257
							Y	L	E	G	L	L	M H Q A A 258
							L	L	A	S	L	L	Q S E S S 259
							H	L	K	T	L	L	K K S K V 260
							Q	L	A	L	L	L	S S E A H 261
							L	L	L	H	L	L	K S Q T I 262
							L	L	Q	L	L	L	G H K N E 263
							V	L	Q	L	L	L	G N P K G 264
							L	L	S	R	L	L	R Q N Q D 265
							V	L	K	Q	L	L	L S E N C 266

SRC1a = human steroid receptor coactivator 1a,
CBP = mouse cAMP-responsive element (CREB)-binding protien,
RIP 140 = human RIP140

Table 101

SEQ ID NO:

Class I

ER4	SSNHQSRLIELLSR	267
D2	GSEPKSRLLELLSAPVTDV	280
D30	HPTHSSRLWELLMEATPTM	281
D11	VESGSSRLMQLLMANDLLT	282

Class II

D47	HVYQHPLLLSLLSSEHESG	268
C33	HVEMHPLLMGLLMESQWGA	269
D14	QEAHGPLLWNLLSRSDTDW	270

Class III

F6	GHEPLTLLERLLMDDKQAV	271
D22	LPYEGSLLLKLLRAPVEEV	272
D48	SGWENSILYSLLSDRVSLD	273
D43	AHGESSLLAWLLSGEYSSA	274
D17	GVFCDSILCQLLAHDNARL	275
D41	HHNGHSILYGLLAGSDAPS	276
D26	LGERASLLDMLLRQENPAW	277
D40	SGWNESTLYRLLQADAFDV	278
D15	PSGGSSVLEYLLTHDTSIL	279
F4	PVGEPGLLWRLLSAPVERE	284

Misc.

D10	WEEHSQMLLHLLDTGEAVW6	283

ERβsp.	#293	SSIKDFPNLISLLSR	187
GRIP-1	NR1	DSKGQTKLLQLLTTKSDQM	16
	NR2	LKEKHKILHQLLQDSSSPV	17
	NR3	KKKENALLRYLLDKDDTKD	18
SRC-1	NR1	YSQTSHKLVKLLTTTAEQQ	19
	NR2	LTARHKILHRLLQEGSPSD	20
	NR3	ESKDHQLLRYLLDKDEKDL	21

Table 202A: Giα1 GDP/GTPγS-Independent Phage (I-Peptides)

ID	Sequence/Motif Aligned	Seq. No.	Liq	Library
99	SRAHLLTWSEFLDSHTK	22	BUF	E
103	SSGELITWYEFLGDLNP	23	BUF	
107	SRGELTTWYEFLSHGRP	24	BUF	E
361	DELTWWEFISD	25	GTP	K
388,391	VTWYDFLMEDTK	26	GTP	CWL
45	GLMTWREFLQE	27	BUF	R
397,401,412	NLMTWYEYLADGERL	28	GTP	Y
15r2,301,394	ADRLWTWQEFLY	29	BUF	PHD12
380,381,140	KTYSLYEFLEL	30	GTP	N
16	SSQLLTLHEFLNS	31	BUF	H
360	SSRGEYWWEFLGYSR	32		
101	SSADGIFWWEYAREAGE	33	BUF	
375,123,125,247	LGRGTTDMPPWAWWS	34	GTP	
331,334	NYTERPWVWYH	35	GDP	
37	SSLYSMEPWKWYT	36	BUF	
387	KWWESDWFVNFG	37	GTP	
386	EEGMDWFMRVVE	38	GTP	

Table 202B: Giα1 GTP-Specific Phage
(T-Peptides)

		SEQ ID NO:		
370,377,378	SVLSSSEMCFGWACY	39	GTP	M
	SEMCFGWACY	40	GDP	PARO
244	FNEVCLGWQCY	41	GTP	K
366,G12 G33,G34	SSNARPCQGWHCYLPSQSR	42		
	WDGGVWMGPAS	43	GTP	K
353	MGDSVLPYGGVWLGP	44	GTP	Y
408	SRYGGVWLGPEGNSR	45		
G22,G25	SSWDGGVWWGQYGSR	46		
G11,G26-29	SSNLDGCFTSGGVWSGCSR	47		
G9,G10	LGYDINGVWIG	48	GTP	N
382				
	ICDIIPWEESCSR	49	GTP	P
384	ACGPAICPWDFMPQL	50	GTP	PARO
413				

Note: clone 244, which was identified in a screen for peptide which bound GDP:G-alpha, is suspected to having increased the affinity of the G-alpha for GTP through a conformational change.

Table 202C: Giα1 GDP-Specific Phage (D-Peptides)

		SEQ ID NO:		
G4	SRGPQLTWQEFLTGAASSR	51		
314	NVVTWWEFLGP	52	GDP	
73	SREFVTWKEFLGS	53	BUF	K
343	SQLTWREFLFG	54	GDP	R
217	SSHLMTWHEFISD	55	GDP	H
93	SRDGFETWAEFLGASGS	56	BUF	
62	SRLTWSEYLSEIDP	57	BUF	CWL
193	SRTVTWVDFLKET	58	GDP	D
324	MSWYEFMTEESM	285	GDP	CWI
400	AKHDLSWYEFLQLPI	286	GTP	V
281	SRLSWWEFLGASDCGTC	287	GDP	X14C<W>
359,161	DLLSLKEFLAT	288	GTP	K
176	SSPNLLTLEEFLS	289	GDP	L
380,381,140	KTYSLYEFLEL	290	GTP	N
409,242	MSNRYTIYEFLNLHS	291	GTP	Y
320	LHWWEVLAEK	292	GDP	CWL
230	SSPQPLLHWWENMTEPP	293	GDP	KNK
213	SRAGESVHWWEVL	294	GDP	H
266	RAGPSEHWWEYIATL	295	GDP	N
237	EMISWHQYLLSIENN	296	GDP	PARO
126,128,133,242,248	SSLRWDEFLMELGGGVA	297	BUF	M
379	VPWWVWLAEGD	298	GTP	N
196	SREIYWWDWLTDT	299	GDP	D
117	FGSNMLDLPTFLDWL	300	BUF	PARO
92	SRITFWELMLEGG	301	BUF	L
179	SRTPYEWLGYWGA	302	GDP	L
289	YDMCTWLEFLDGGEC	303	GDP	X14CW
265	SPLCTWAEYLMEPSC	304	GDP	N
273	TQWCTWAEFLSSTDC	305	GDP	M
272,282,6R2	SSDGCTWQEFLAGHGPC	306	GDP	N
337,339	PFNNPPWMWWS	307	GDP	P
268	SSPTVHENLPPWLWWSP	308	GDP	N
330	LIHVPPWAWYD	309	GDP	P
329	GFDVPPWYWDF	310	GDP	P
280	YSQVFGDAPVWAWYSSR	311	GDP	X14CW
319	WTPSDWQWWRSK	312	GDP	CWL
115	SSHWSSDSIFPGFWYSG	313	BUF	PARO
197	SRGGVDLDIGNSA	314	GDP	D
347	EGEDVRTRIAN	315	GDP	R

SEQUENCE LISTING

<110> PAIGE, Lisa A.
MCDONNELL, Donald P.
CHANG, Ching Yu
NORRIS, John
HAMILTON, Paul T.
FOWLKES, Dana M.
BARNETT, Tom
CHRISTIANSEN, Dale J.
BUEHRER, Benjamin

<120> METHOD OF PREDICTING THE ABILITY OF COMPOUNDS TO MODULATE THE BIOLOGICAL ACTIVITY OF RECEPTORS

<130> PAIGE1D

<140> 09/429,331
<141> 1999-10-28

<150> PCT/US99/06664
<151> 1999-03-26

<150> 60/082,756
<151> 1998-04-23

<150> 60/099,656
<151> 1998-09-09

<150> 60/115,345
<151> 1999-01-08

<160> 315

<170> PatentIn Ver. 2.0

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<211> 20
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1 5 10 15

Gly Ser Gly Lys
20

<210> 2
<211> 8
<212> PRT
<213> Artificial Sequence

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<220>
<223> Xaa at positions 5 and 6 can be any amino acid residue

<400> 2
Ser Arg Leu Leu Xaa Xaa Leu Leu
1 5

<210> 3
<211> 23
<212> DNA
<213> Xenopus laevis

<400> 3
gatctaggtc acagtgacct gcg 23

<210> 4
<211> 23
<212> DNA
<213> Xenopus laevis

<400> 4
gatccgcagg tcactgtgac cta 23

<210> 5
<211> 85
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5
gactgtgcga attcggtcat gaaccattaa ctttattaga aagattatta atggatgata 60
aacaagctgt tctcgagcgt gtcag 85

<210> 6
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial: Selected sequence from combinatorial library

<400> 6
gactgtgcga attctcttct ttaacttcta gagattttgg ttcttggtat gcttctagac 60
tcgagcgtgt cag 73

<210> 7
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial: Selected sequence from
combinatorial library

<400> 7
gactgtgcga attctcttct tgggatatgc atcaattttt ttgggaaggt gtttctagac 60
tcgagcgtgt cag 73

<210> 8
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial: Selected sequence from
combinatorial library

<400> 8
gactgtgcga attctcttct ccaggttcta gagaatggtt taaagatatg ttatctagac 60
tcgagcgtgt cag 73

<210> 9
<211> 14
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial: Selected sequence from
combinatorial library

<400> 9
ctgacacgct cgag 14

<210> 10
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 10
Gly His Glu Pro Leu Thr Leu Leu Glu Arg Leu Leu Met Asp Asp Lys
1 5 10 15

Gln Ala Val

<210> 11
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary
peptide

<400> 11
Ser Ser Trp Asp Met His Gln Phe Phe Trp Glu Gly Val Ser Arg
1 5 10 15

<210> 12
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 12
Ser Ser Pro Gly Ser Arg Glu Trp Phe Lys Asp Met Leu Ser Arg
1 5 10 15

<210> 13
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 13
Ser Ser Leu Thr Ser Arg Asp Phe Gly Ser Trp Tyr Ala Ser Arg
1 5 10 15

<210> 14
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<220>
<223> N at each occurrence is A, C, G or T; K at each occurrence is C or T

<400> 14
agtgtgtgcc tcgagannkn nknnknnknn knnknnkctg nnknnkctgc tgnnknnknn 60
knnknnknnk nnktctagac tgtgcagt 88

<210> 15
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
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3' end of SEQ ID NO:14

<400> 15 15
actgcacagt ctaga

<210> 16
<211> 19
<212> PRT
<213> Homo sapiens

<400> 16
Asp Ser Lys Gly Gln Thr Lys Leu Leu Gln Leu Leu Thr Thr Lys Ser
1 5 10 15

Asp Gln Met

<210> 17
<211> 19
<212> PRT
<213> Homo sapiens

<400> 17
Leu Lys Glu Lys His Lys Ile Leu His Gln Leu Leu Gln Asp Ser Ser
1 5 10 15

Ser Pro Val

<210> 18
<211> 19
<212> PRT
<213> Homo sapiens

<400> 18
Lys Lys Lys Glu Asn Ala Leu Leu Arg Tyr Leu Leu Asp Lys Asp Asp
1 5 10 15

Thr Lys Asp

<210> 19
<211> 19
<212> PRT
<213> Homo sapiens

<400> 19
Tyr Ser Gln Thr Ser His Lys Leu Val Lys Leu Leu Thr Thr Thr
1 5 10

Ala Glu Gln Gln

<210> 24
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 24
Ser Arg Gly Glu Leu Thr Thr Trp Tyr Glu Phe Leu Ser His Gly Arg
1 5 10 15

Pro

<210> 25
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 25
Asp Glu Leu Thr Trp Trp Glu Phe Ile Ser Asp
1 5 10

<210> 26
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 26
Val Thr Trp Tyr Asp Phe Leu Met Glu Asp Thr Lys
1 5 10

<210> 27
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 27
Gly Leu Met Thr Trp Arg Glu Phe Leu Gln Glu
1 5 10

<210> 28
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 28
Asn Leu Met Thr Trp Tyr Glu Tyr Leu Ala Asp Gly Glu Arg Leu
1 5 10 15

<210> 29
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 29
Ala Asp Arg Leu Trp Thr Trp Gln Glu Phe Leu Tyr
1 5 10

<210> 30
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 30
Lys Thr Tyr Ser Leu Tyr Glu Phe Leu Glu Leu
1 5 10

<210> 31
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 31
Ser Ser Gln Leu Leu Thr Leu His Glu Phe Leu Asn Ser
1 5 10

<210> 32

<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 32
Ser Ser Arg Gly Glu Tyr Trp Trp Glu Phe Leu Gly Tyr Ser Arg
1 5 10 15

<210> 33
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 33
Ser Ser Ala Asp Gly Ile Phe Trp Trp Glu Tyr Ala Arg Glu Ala Gly
1 5 10 15

Glu

<210> 34
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 34
Leu Gly Arg Gly Thr Thr Asp Met Pro Pro Trp Ala Trp Trp Ser
1 5 10 15

<210> 35
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 35
Asn Tyr Thr Glu Arg Pro Trp Val Trp Tyr His
1 5 10

<210> 36

<211> 13
<212> PRT
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<220>
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<400> 36
Ser Ser Leu Tyr Ser Met Glu Pro Trp Lys Trp Tyr Thr
1 5 10

<210> 37
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 37
Lys Trp Trp Glu Ser Asp Trp Phe Val Asn Phe Gly
1 5 10

<210> 38
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 38
Glu Glu Gly Met Asp Trp Phe Met Arg Val Val Glu
1 5 10

<210> 39
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 39
Ser Val Leu Ser Ser Ser Glu Met Cys Phe Gly Trp Ala Cys Tyr
1 5 10 15

<210> 40
<211> 10
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 40
Ser Glu Met Cys Phe Gly Trp Ala Cys Tyr
1 5 10

<210> 41
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 41
Phe Asn Glu Val Cys Leu Gly Trp Gln Cys Tyr
1 5 10

<210> 42
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 42
Ser Ser Asn Ala Arg Pro Cys Gln Gly Trp His Cys Tyr Leu Pro Ser
1 5 10 15

Gln Ser Arg

<210> 43
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 43
Trp Asp Gly Gly Val Trp Met Gly Pro Ala Ser
1 5 10

<210> 44
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 44
Met Gly Asp Ser Val Leu Pro Tyr Gly Gly Val Trp Leu Gly Pro
1 5 10 15

<210> 45
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 45
Ser Arg Tyr Gly Gly Val Trp Leu Gly Pro Glu Gly Asn Ser Arg
1 5 10 15

<210> 46
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 46
Ser Ser Trp Asp Gly Gly Val Trp Trp Gly Gln Tyr Gly Ser Arg
1 5 10 15

<210> 47
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 47
Ser Ser Asn Leu Asp Gly Cys Phe Thr Ser Gly Gly Val Trp Ser Gly
1 5 10 15

Cys Ser Arg

<210> 48
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 48
Leu Gly Tyr Asp Ile Asn Gly Val Trp Ile Gly
1 5 10

<210> 49
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 49
Ile Cys Asp Ile Ile Pro Trp Glu Glu Ser Cys Ser Arg
1 5 10

<210> 50
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 50
Ala Cys Gly Pro Ala Ile Cys Pro Trp Asp Phe Met Pro Gln Leu
1 5 10 15

<210> 51
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 51
Ser Arg Gly Pro Gln Leu Thr Trp Gln Glu Phe Leu Thr Gly Ala Ala
1 5 10 15

Ser Ser Arg

<210> 52
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 52
Asn Val Val Thr Trp Trp Glu Phe Leu Gly Pro
1 5 10

<210> 53
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 53
Ser Arg Glu Phe Val Thr Trp Lys Glu Phe Leu Gly Ser
1 5 10

<210> 54
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 54
Ser Gln Leu Thr Trp Arg Glu Phe Leu Phe Gly
1 5 10

<210> 55
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 55
Ser Ser His Leu Met Thr Trp His Glu Phe Ile Ser Asp
1 5 10

<210> 56
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 56
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1 5 10 15

Ser

<210> 57
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 57
Ser Arg Leu Thr Trp Ser Glu Tyr Leu Ser Glu Ile Asp Pro
1 5 10

<210> 58
<211> 13
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<220>
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<400> 58
Ser Arg Thr Val Thr Trp Val Asp Phe Leu Lys Glu Thr
1 5 10

<210> 59
<211> 15
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 59
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1 5 10 15

<210> 60
<211> 15
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<220>

<223> Description of Artificial Sequence:Arbitrary peptide

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1 5 10 15

<210> 61
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<220>
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<400> 61
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1 5 10 15

<210> 62
<211> 15
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<220>
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<400> 62
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1 5 10 15

<210> 63
<211> 15
<212> PRT
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<220>
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1 5 10 15

<210> 64
<211> 15
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<220>
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Ser Ser Lys Leu Tyr Cys Leu Leu Asp Glu Ser Tyr Cys Ser Arg
1 5 10 15

<210> 65
<211> 14
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<220>
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His Gly Pro Leu Thr Leu Asn Leu Leu Arg Ser Ser Gly Gly
1 5 10

<210> 66
<211> 15
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<220>
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<400> 66
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1 5 10 15

<210> 67
<211> 15
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<220>
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1 5 10 15

<210> 68
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<400> 68

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1 5 10 15

<210> 69
<211> 14
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<220>
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1 5 10

<210> 70
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<220>
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1 5 10 15

<210> 71
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<400> 71
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1 5 10 15

<210> 72
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<220>
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1 5 10 15

<210> 73
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<400> 73
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1 5 10

<210> 74
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1 5 10 15

<210> 75
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<400> 75
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1 5 10

<210> 76
<211> 15
<212> PRT
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1 5 10 15

<210> 77
<211> 15
<212> PRT
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<220>
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<400> 77
Ser Ser Cys Lys Trp Tyr Glu Lys Cys Ser Gly Leu Trp Ser Arg
1 5 10 15

<210> 78
<211> 15
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<220>
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<400> 78
Ser Ser Arg Met Gly His Val Trp Tyr Asp Trp Thr Phe Ser Arg
1 5 10 15

<210> 79
<211> 15
<212> PRT
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<220>
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<400> 79
Ser Ser Arg Leu Leu Gly Asp Phe Gly Gly Ser Val Val Ser Arg
1 5 10 15

<210> 80
<211> 15
<212> PRT
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<220>
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1 5 10 15

<210> 81
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<212> PRT
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<220>
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<400> 81
Ser Ser Trp Ala Gly Ile Lys Phe Gly Lys Pro Pro His Ser Arg
1 5 10 15

<210> 82
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1 5 10 15

<210> 83
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<220>
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<400> 83
Ser Arg Asp Thr Gly Asp Met Trp Trp Gly Arg Gly Gly Ser Arg
1 5 10 15

<210> 84
<211> 15
<212> PRT
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<220>
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<400> 84
Ser Ser Gly Arg Tyr Asp Pro Phe Val Leu Asn Ala Ala Ser Arg
1 5 10 15

<210> 85
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<212> PRT
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<220>
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<400> 85
Ser Ser Ser Pro Trp Trp Ser Phe Asn Leu Arg Asp Met Ser Arg
1 5 10 15

<210> 86
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 86
Ser Ser Trp Pro Tyr Leu Pro Lys Arg Glu Glu Trp Ala Ser Arg
1 5 10 15

<210> 87
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 87
Ser Ser Gly Trp Ile Glu Gln Lys Leu Arg Gly Ser Phe Ser Arg
1 5 10 15

<210> 88
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 88
Ser Ser Ser Ala Thr Ser Ile Lys Val Gln Tyr Gln Ile Ser Arg
1 5 10 15

<210> 89
<211> 15
<212> PRT
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<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 89
Ser Ser Tyr Leu Thr Leu Gly Lys Ser Met Met Ala Ile Ser Arg
1 5 10 15

<210> 90
<211> 15
<212> PRT
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<220>
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<400> 90
Ser Ser Trp His Ser Arg Trp Asp Leu Ala Leu Gly Phe Ser Arg
1 5 10 15

<210> 91
<211> 15
<212> PRT
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<220>
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<400> 91
Ser Ser Gly Tyr Trp Gly Gly Trp Asp Tyr Gly Ala Gly Ser Arg
1 5 10 15

<210> 92
<211> 15
<212> PRT
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<220>
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<400> 92
Ser Arg Asp Asn Cys Gly Ala Gly Leu Trp Ala Gly Cys Ser Arg
1 5 10 15

<210> 93
<211> 15
<212> PRT
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<220>
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<400> 93
Ser Ser Ser Thr Pro Gly Trp Trp Glu Trp Asp Trp Ala Ser Arg
1 5 10 15

<210> 94
<211> 19
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 94
Ser Ser Tyr Trp Asp Gly Ser Trp Arg Arg Lys Glu Thr Cys Val Ser
1 5 10 15

Cys Ser Arg

<210> 95
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 95
Ser Ser Arg Thr Ala Glu Asp Tyr Cys Phe Phe Ala Asp Asp Tyr Trp
1 5 10 15

Cys Ser Arg

<210> 96
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 96
Ser Ser Arg Ala Leu Ala Leu Phe Pro Val Gly Met Glu Ser Arg
1 5 10 15

<210> 97
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 97
Ser Ser Asp Cys Glu Ser Leu Thr Ser Tyr Pro His Leu Lys Ala Leu
1 5 10 15

Cys Ser Arg

<210> 98
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 98
Ser Ser Thr Ala Thr Ala Leu Arg Asp Arg Leu Ala Tyr Ser Arg
1 5 10 15

<210> 99
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 99
Ser Ser Gly Lys Thr Arg Glu His Tyr Arg Glu Gly Thr Ser Arg
1 5 10 15

<210> 100
<211> 16
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 100
His Ser His Asn His His Ser Pro Trp Leu Phe Arg Leu Leu Gly Gly
1 5 10 15

<210> 101
<211> 16
<212> PRT

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<220>
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<400> 101
His Ser His Pro His His Ser His Leu Leu Tyr Lys Leu Met Gly Gly
1 5 10 15

<210> 102
<211> 16
<212> PRT
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<220>
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<400> 102
His Ser His Pro Leu Pro Pro Leu Leu Ser Arg Leu Leu Thr Gly Gly
1 5 10 15

<210> 103
<211> 19
<212> PRT
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<220>
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<400> 103
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1 5 10 15

Cys Ser Arg

<210> 104
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 104
Ser Ser Leu Thr Ser Arg Asp Phe Gly Ser Trp Tyr Ala Ser Arg
1 5 10 15

<210> 105
<211> 14

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 105
Ser Arg Thr Leu Gln Leu Asp Trp Gly Thr Leu Tyr Ser Arg
1 5 10

<210> 106
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 106
Ser Arg Leu Pro Pro Ser Val Phe Ser Met Cys Gly Ser Glu Val Cys
1 5 10 15

Leu Ser Arg

<210> 107
<211> 28
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 107
Ser Arg Phe Glu Ile Trp Lys Pro Glu Pro Gly Cys Val Ser Ser Leu
1 5 10 15

Glu Asn Trp Glu Pro Gly Lys Arg Val Cys Ser Arg
20 25

<210> 108
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 108
Ser Arg Val Phe Gly Val Ser Gly Gly Glu Val Val Leu Ile Asn Gly
1 5 10 15

Ser Ser Arg

<210> 109
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 109
Ser Arg Leu Cys Phe Gly Asp Trp Cys Met Leu Gly Gly Val Asp Val
1 5 10 15

Leu Ser Arg

<210> 110
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 110
Ser Ser Leu Asn Met Val Val Asp Thr Pro Trp Cys Gly Lys Trp Val
1 5 10 15

Cys Ser Arg

<210> 111
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 111
Ser Ser Arg Pro Asp Ala Ala Phe Phe Gly Ala Lys Leu Ser Arg
1 5 10 15

<210> 112
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 112
Ser Ser Arg Pro Ser Pro Ser Phe Trp Glu Lys Gln Leu Ser Arg
1 5 10 15

<210> 113
<211> 15
<212> PRT
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<220>
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<400> 113
Ser Ser Arg Pro Thr Ala Glu Trp Phe Arg Glu Asn Leu Ser Arg
1 5 10 15

<210> 114
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 114
Ser Arg Trp Trp Asp Thr Ser Trp Trp Leu Glu Glu Leu Ser Arg
1 5 10 15

<210> 115
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 115
Ser Ser Arg Ile Ala Asp Leu Phe Trp Arg Leu Glu Pro Ser Arg
1 5 10 15

<210> 116
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary

peptide

<400> 116
Ser Arg Ser Tyr His Gly Glu Trp Gly Val Trp Thr Leu Ser Arg
1 5 10 15

<210> 117
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 117
Ser Ser Asp Trp Cys Phe Gly Trp Gly Gly Trp Cys Ala Ser Glu Ala
1 5 10 15

Val Ser Arg

<210> 118
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 118
Ser Arg Asn Trp Asp Trp Ala Ala Leu Glu Leu Leu Pro Tyr Pro His
1 5 10 15

Pro Ser Arg

<210> 119
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 119
Ser Ser Leu Thr Ser Arg Asp Phe Gly Ser Trp Tyr Ala Ser Arg
1 5 10 15

<210> 120
<211> 15
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 120
Ser Arg Ser Pro Ile Leu Thr His Leu Leu Ser Leu Gly Ser Arg
1 5 10 15

<210> 121
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 121
Ser Ser Thr Gly Ile Leu Trp Lys Leu Leu Thr Ala Glu Ser Arg
1 5 10 15

<210> 122
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 122
Ser Ser His Gly Ile Leu Trp Arg Leu Leu Ser Glu Gly Ser Arg
1 5 10 15

<210> 123
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 123
Ser Arg Ser Asp Ser Ile Leu Trp Arg Met Leu Ser Glu Ser Arg
1 5 10 15

<210> 124
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 124
Ser Arg Leu Val Ala Leu Leu Lys Ser Pro Trp Ser Val Ser Arg
1 5 10 15

<210> 125
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 125
Ser Arg Leu Glu Glu Leu Leu Leu Met Asp Phe Trp Arg Ser Arg
1 5 10 15

<210> 126
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 126
Ser Ser Lys Leu Trp Gln Leu Leu Ser Ser Pro Ile Asp Ser Arg
1 5 10 15

<210> 127
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 127
Ser Ser Lys Leu Tyr Cys Leu Leu Asp Glu Ser Tyr Cys Ser Arg
1 5 10 15

<210> 128
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary

peptide

<400> 128
Ser Arg Ser Leu Leu Met Asp Met Leu Met Ser Asp Asp Tyr Val Thr
1 5 10 15

Val Ser Arg

<210> 129
<211> 19
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 129
Ser Ser Arg Leu Leu Ala Cys Glu Leu Met Tyr Glu Asp Ala Asp Val
1 5 10 15

Cys Ser Arg

<210> 130
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 130
His Ser His Ser Pro Leu Leu Met Ala Leu Leu Ala Pro Pro Gly Gly
1 5 10 15

<210> 131
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 131
Ser Arg Leu Glu Tyr Tyr Leu Arg Leu Gly Thr Tyr Glu Ser Arg
1 5 10 15

<210> 132
<211> 15
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 132
Ser Ser Cys Leu Arg Glu Ile Leu Leu Tyr Gly Ala Cys Ser Arg
1 5 10 15

<210> 133
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 133
Ser Ser Arg Thr Ala Glu Asp Tyr Cys Phe Phe Ala Asp Asp Tyr Trp
1 5 10 15

Cys Ser Arg

<210> 134
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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<400> 134
Ser Ser Leu Arg Cys Tyr Leu Ser Ser Ser Lys Val Asp Gln Trp Ala
1 5 10 15

Cys Ser Arg

<210> 135
<211> 19
<212> PRT
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<220>
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<400> 135
Ser Ser Tyr Lys Pro His Ser Leu Leu Glu Trp His Leu Leu Gly Gly
1 5 10 15

Thr Ser Arg

<210> 136
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 136
Ser Arg Leu His Cys Leu Leu Asp Ser Ser Tyr Cys Ser Ser Arg
1 5 10 15

<210> 137
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 137
Ser Arg Leu His Cys Leu Leu Asp Ser Ser Tyr Cys Ser Ser Arg
1 5 10 15

<210> 138
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 138
Ser Ser Trp Pro Asn Pro Thr Phe Trp Glu Arg Gln Leu Ser Arg
1 5 10 15

<210> 139
<211> 14
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 139
Ser Tyr Ser Lys Glu Trp Phe Glu Glu Arg Leu Asn Ser Arg
1 5 10

<210> 140
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 140
Ser Ser Ser Met Met Arg Glu Phe Phe Glu Arg Glu Leu Ser Arg
1 5 10 15

<210> 141
<211> 15
<212> PRT
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<220>
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<400> 141
Ser Ser Gly Leu Pro Pro Asn Phe Glu Arg Met Leu Lys Ser Arg
1 5 10 15

<210> 142
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 142
Ser Ser Gly Pro Trp Leu Met His Tyr Leu Gly Gly Gly Ser Arg
1 5 10 15

<210> 143
<211> 15
<212> PRT
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<220>
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<400> 143
Ser Ser Thr Ser Trp Leu His His Tyr Leu Met Gly Thr Ser Arg
1 5 10 15

<210> 144
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<212> PRT
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<400> 144
Ser Arg Gly Gly Gly Glu Cys Leu Gly Pro Trp Cys Leu Ser Arg
1 5 10 15

<210> 145
<211> 19
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 145
Ser Ser Glu Ala Cys Val Gly Arg Trp Met Leu Cys Glu Gln Leu Gly
1 5 10 15

Val Ser Arg

<210> 146
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 146
Ser Ser Gln Val Trp Pro Gly Pro Trp Arg Leu Val Glu Ser Arg
1 5 10 15

<210> 147
<211> 15
<212> PRT
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<400> 147
Ser Ser Ser Leu Gly Pro Trp Arg Leu Ser Glu Leu Glu Ser Arg
1 5 10 15

<210> 148
<211> 15
<212> PRT
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<400> 148
Ser Ser Ser Gly Pro Trp Arg Trp Gly Leu Ser Ile Glu Ser Arg
1 5 10 15

<210> 149
<211> 15
<212> PRT
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<400> 149
Ser Arg Glu Cys Val Gly Gly Trp Cys Leu Ala Glu Leu Ser Arg
1 5 10 15

<210> 150
<211> 15
<212> PRT
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<220>
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<400> 150
Ser Ser Ile Pro Pro Arg Ser Trp Trp Leu Ser Gln Leu Ser Arg
1 5 10 15

<210> 151
<211> 15
<212> PRT
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<400> 151
Ser Ser Trp Pro Gly Ala Glu Trp Phe Lys Glu Gln Leu Ser Arg
1 5 10 15

<210> 152

<211> 15
<212> PRT
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<400> 152
Ser Ser Lys Leu Tyr Cys Leu Leu Asp Glu Ser Tyr Cys Ser Arg
1 5 10 15

<210> 153
<211> 16
<212> PRT
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<223> Description of Artificial Sequence:Arbitrary peptide

<400> 153
His Ser Tyr Ser Ser His Pro Leu Leu Leu Ser Tyr Leu Trp Gly Gly
1 5 10 15

<210> 154
<211> 16
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 154
His Ser Trp Leu Gly Pro Trp Arg Leu Ser Ser Ile Asp Leu Gly Gly
1 5 10 15

<210> 155
<211> 16
<212> PRT
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<400> 155
His Ser Thr Asp Met Gly Trp Leu Arg Pro Trp Arg Leu Leu Gly Gly
1 5 10 15

<210> 156
<211> 15
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 156
Ser Ser Val Phe Thr Ile Met Asp Gly Lys Val Ala Leu Ser Arg
1 5 10 15

<210> 157
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 157
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1 5 10 15

<210> 158
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 158
Ser Arg Glu Trp Glu Asp Gly Phe Gly Gly Arg Trp Leu Ser Arg
1 5 10 15

<210> 159
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 159
Ser Ser Trp Asn Ser Arg Glu Phe Phe Leu Ser Gln Leu Ser Arg
1 5 10 15

<210> 160
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 160
Ser Ser Thr Thr Met Phe Asp Phe Phe Tyr Glu Arg Leu Ser Arg
1 5 10 15

<210> 161
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 161
Ser Ser Ala Arg Pro Trp Trp Leu Gln Phe Glu Gly Ser Ser Arg
1 5 10 15

<210> 162
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 162
Ser Ser Gln Glu Glu Trp Leu Leu Pro Trp Arg Leu Ala Ser Arg
1 5 10 15

<210> 163
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 163
Ser Arg Leu Pro Pro Ser Val Phe Ser Met Cys Gly Ser Glu Val Cys
1 5 10 15

Leu Ser Arg

<210> 164
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 164
Ser Ser Gly Pro Phe Tyr Val Gly Gly Met Leu Trp Pro Ala Asp Cys
1 5 10 15

Leu Ser Arg

<210> 165
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 165
Ser Arg Glu Gly Trp Met Gly Pro Trp Arg Leu Ala Asp Ser Arg
1 5 10 15

<210> 166
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 166
Ser Arg Asn Glu Cys Ile Gly Pro Trp Cys Leu Thr Ile Ser Arg
1 5 10 15

<210> 167
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 167
Ser Ser Pro Gly Ser Arg Glu Trp Phe Lys Asp Met Leu Ser Arg
1 5 10 15

<210> 168
<211> 15
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 168
Ser Ser Val Ala Ser Arg Glu Trp Trp Val Arg Glu Leu Ser Arg
1 5 10 15

<210> 169
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 169
Ser Arg Met Phe Gln Val Cys Gly Asp Glu Val Cys Leu Arg Ser Arg
1 5 10 15

<210> 170
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 170
Ser Ser Asp Leu His Arg Asp Cys Leu Gly Val Trp Cys Leu Ser Arg
1 5 10 15

<210> 171
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 171
Ser Arg Leu Asn Gly Val Phe Cys His Asp Ser Ser Asp Leu Trp Val
1 5 10 15

Cys Ser Arg

<210> 172
<211> 19

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 172
Ser Arg Pro Gly Cys Leu Arg Gly Val Trp Cys Leu Ala Asp Thr Pro
1 5 10 15

Pro Ser Arg

<210> 173
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 173
Ser Ser Arg Leu Val Pro His Ser Phe Trp Leu Asp Gly Leu Met His
1 5 10 15

Gly Ser Arg

<210> 174
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 174
Ser Ser Ile Ser Thr Tyr His Met Gly Glu Trp Phe Tyr Ala Met Leu
1 5 10 15

Ser Ser Arg

<210> 175
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 187
Ser Ser Ile Lys Asp Phe Pro Asn Leu Ile Ser Leu Leu Ser Arg
1 5 10 15

<210> 188
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 188
Ser Ser Gly Ser Ser Ala Gly Arg Leu Met Met Leu Leu Gln Asp Gly
1 5 10 15

Val Ser Arg

<210> 189
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 189
Ser Arg Glu Gly Leu Leu Met Arg Leu Leu Ile Gly Asp Ser Arg
1 5 10 15

<210> 190
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 190
Ser Ser His Cys His Thr Arg Leu Cys Ser Leu Leu Thr Ser Arg
1 5 10 15

<210> 191
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 191
Ser Ser Arg Leu Leu Cys Leu Leu Asp Ala Gly Gln Cys Ser Arg
1 5 10 15

<210> 192
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 192
Ser Arg Asn Leu Leu Cys Leu Leu Asp Gln Glu Ala Cys Ser Arg
1 5 10 15

<210> 193
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 193
Ser Ser Leu Lys Cys Leu Leu Asn Ser Asn Phe Cys Ser Arg
1 5 10

<210> 194
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 194
Ser Ser Leu Lys Cys Leu Leu Gln Ser Ser Pro Gln Lys Gln Pro Phe
1 5 10 15

Cys Ser Arg

<210> 195
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 195
Ser Ser Arg Thr Leu Leu Glu His Tyr Leu Leu Gly Gly Ser Arg
1 5 10 15

<210> 196
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 196
Ser Ser Ala Gly Leu Leu Glu Asp Met Leu Arg Ser Arg Ser Arg
1 5 10 15

<210> 197
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 197
Ser Ser Arg Cys Ser Ser Leu Leu Cys Glu Met Leu Ile Gln Thr Lys
1 5 10 15

Glu Ser Arg

<210> 198
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 198
Ser Ser Leu Gln Ala Gly Ser Trp Leu Met His Tyr Leu Arg Gly Gly
1 5 10 15

Asp Ser Arg

<210> 199
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 199
Ser Arg Pro Glu Gly Ser Ser Trp Leu Leu His Tyr Leu Ser Arg
1 5 10 15

<210> 200
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 200
Ser Ser Arg Thr Leu Leu Glu His Tyr Leu Leu Gly Gly Ser Arg
1 5 10 15

<210> 201
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 201
Ser Arg Trp Trp Leu Asp Asp His Glu Leu Leu Leu Tyr Ser Ser Arg
1 5 10 15

<210> 202
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 202
Ser Ser Arg Thr Leu Tyr Cys His Leu Thr Ser Ser Asn Pro Glu Trp
1 5 10 15

Cys Ser Arg

<210> 203
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 203
Ser Ser Thr Arg Leu Met Cys Trp Leu Gly Ser Ala Asp Thr Ser His
1 5 10 15

Cys Ser Arg

<210> 204
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 204
Ser Ser Tyr Asp Trp Gln Cys Pro Ser Trp Tyr Cys Pro Ala Pro Pro
1 5 10 15

Ser Ser Arg

<210> 205
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 205
Ser Ser Thr Thr Trp Arg Cys Pro Glu Trp Tyr Cys Gly Ser Arg
1 5 10 15

<210> 206
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 206
Ser Ser Trp Asp Phe Arg Val Pro Trp Trp Tyr Asn Asn Ser Arg
1 5 10 15

<210> 207
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 207
Ser Ser Gln Trp Gln Ala Pro Trp Trp Tyr Ile Asp Ala Ser Arg
1 5 10 15

<210> 208
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 208
Ser Ser Arg Pro Ser Phe Thr Ile Pro Trp Trp Phe Asp Asp Pro Ser
1 5 10 15

Arg Ser Arg

<210> 209
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 209
Ser Ser Tyr Glu Ile Pro Lys Trp Ala Leu Gln Trp Leu Ser Arg
1 5 10 15

<210> 210
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 210
Ser Ser Leu Asp Leu Ser Gln Phe Pro Met Thr Ala Ser Phe Leu Arg
1 5 10 15

Glu Ser Arg

<210> 211
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 211
Ser Ser Asn His Gln Ser Ser Arg Leu Ile Glu Leu Leu Ser Arg
1 5 10 15

<210> 212
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 212
Ser Ala Pro Arg Ala Thr Ile Ser His Tyr Leu Met Gly Gly
1 5 10

<210> 213
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 213
Ser Ser Trp Asp Met His Gln Phe Phe Trp Glu Gly Val Ser Arg
1 5 10 15

<210> 214
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary

peptide

<400> 214
Ser Arg Leu Pro Pro Ser Val Phe Ser Met Cys Gly Ser Glu Val Cys
1 5 10 15

Leu Ser Arg

<210> 215
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 215
Ser Ser Pro Gly Ser Arg Glu Trp Phe Lys Asp Met Leu Ser Arg
1 5 10 15

<210> 216
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 216
Ser Ser Glu Tyr Cys Phe Tyr Trp Asp Ser Ala His Cys Ser Arg
1 5 10 15

<210> 217
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 217
Ser Ser Leu Thr Ser Arg Asp Phe Gly Ser Trp Tyr Ala Ser Arg
1 5 10 15

<210> 218
<211> 15
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 218
Ser Arg Thr Trp Glu Ser Pro Leu Gly Thr Trp Glu Trp Ser Arg
1 5 10 15

<210> 219
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 219
Ser Arg Glu Trp Glu Asp Gly Phe Gly Gly Arg Trp Leu Ser Arg
1 5 10 15

<210> 220
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 220
Ser Ser Leu Asp Leu Ser Gln Phe Pro Met Thr Ala Ser Phe Leu Arg
1 5 10 15

Glu Ser Arg

<210> 221
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 221
Ser Ser Glu Ala Cys Val Gly Arg Trp Met Leu Cys Glu Gln Leu Gly
1 5 10 15

Val Ser Arg

<210> 222
<211> 15

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 222
Ser Arg Ala Gly Leu Leu Ser Asp Leu Leu Glu Gly Lys Ser Arg
1 5 10 15

<210> 223
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 223
Ser Ser Arg Ser Leu Leu Arg Asp Leu Leu Met Val Asp Ser Arg
1 5 10 15

<210> 224
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 224
Ser Ser Asn Lys Leu Leu Tyr Asn Leu Leu Lys Met Glu Ser Arg
1 5 10 15

<210> 225
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 225
Ser Ser Lys Ser Leu Leu Leu Asn Leu Leu Ser Thr Pro Ser Arg
1 5 10 15

<210> 226
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 226
His Ser Phe Pro Arg Glu Ser Leu Leu Val Arg Leu Leu Gln Gly Gly
1 5 10 15

<210> 227
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 227
Ser Arg Leu Glu Met Leu Leu Arg Ser Glu Thr Asp Phe Ser Arg
1 5 10 15

<210> 228
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 228
Ser Arg Leu Glu Glu Leu Leu Lys Trp Gly Ser Val Thr Ser Arg
1 5 10 15

<210> 229
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 229
Ser Arg Leu Glu Gln Leu Leu Lys Glu Glu Phe Ser Tyr Ser Arg
1 5 10 15

<210> 230
<211> 15
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 230
Ser Arg Leu Glu Gln Leu Leu Arg Ser Glu Pro Asp Phe Ser Arg
1 5 10 15

<210> 231
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 231
Ser Arg Leu Glu Asp Leu Leu Arg Ala Pro Phe Thr Thr Ser Arg
1 5 10 15

<210> 232
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 232
Ser Arg Leu Glu Ser Leu Leu Arg Phe Gly Gln Leu Asp Ser Arg
1 5 10 15

<210> 233
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 233
Ser Ser Arg Leu Leu Ser Leu Leu Val Gly Asp Phe Asn Ser Arg
1 5 10 15

<210> 234
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 234
Ser Arg Leu Glu Glu Leu Leu Leu Gly Thr Asn Arg Asp Ser Arg
1 5 10 15

<210> 235
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 235
Ser Arg Leu Glu Glu Leu Leu Leu Met Asp Phe Trp Arg Ser Arg
1 5 10 15

<210> 236
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 236
Ser Arg Leu Lys Glu Leu Leu Leu Leu Pro Thr Asp Leu Ser Arg
1 5 10 15

<210> 237
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 237
Ser Arg Leu Glu Cys Leu Leu Glu Gly Arg Leu Asn Cys Ser Arg
1 5 10 15

<210> 238
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 238

Ser Ser Lys Leu Tyr Cys Leu Leu Asp Glu Ser Tyr Cys Ser Arg
1 5 10 15

<210> 239
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 239
Ser Arg Leu Ser Cys Leu Leu Met Gly Phe Glu Asp Cys Ser Arg
1 5 10 15

<210> 240
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 240
Ser Ser Lys Leu Ile Arg Leu Leu Thr Ser Asp Glu Glu Leu Ser Arg
1 5 10 15

<210> 241
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 241
Ser Ser Arg Leu Met Glu Leu Leu Gln Glu Gly Gln Gly Trp Ser Arg
1 5 10 15

<210> 242
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 242
Ser Ser Asn His Gln Ser Ser Arg Leu Ile Glu Leu Leu Ser Arg
1 5 10 15

<210> 243
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 243
Ser Ser Arg Leu Trp Gln Leu Leu Ala Ser Thr Asp Thr Ser Arg
1 5 10 15

<210> 244
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 244
Ser Ser Lys Leu Trp Gln Leu Leu Ser Ser Pro Ile Asp Ser Arg
1 5 10 15

<210> 245
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 245
Ser Arg Leu Val Ala Leu Leu Lys Ser Pro Trp Ser Val Ser Arg
1 5 10 15

<210> 246
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 246
Ser Ser Asn Ser Met Leu Trp Lys Leu Leu Ala Ala Pro Ser Arg
1 5 10 15

<210> 247
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 247
Ser Ser Lys Thr Leu Trp Arg Leu Leu Glu Gly Glu Arg Ser Arg
1 5 10 15

<210> 248
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 248
Ser Arg Ala Gly Pro Val Leu Trp Gly Leu Leu Ser Glu Ser Arg
1 5 10 15

<210> 249
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 249
Ser Arg Ser Pro Ile Leu Thr His Leu Leu Ser Leu Gly Ser Arg
1 5 10 15

<210> 250
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 250
Ser Ser Thr Gly Ile Leu Trp Lys Leu Leu Thr Ala Glu Ser Arg
1 5 10 15

<210> 251
<211> 15

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 251
Ser Ser His Gly Ile Leu Trp Arg Leu Leu Ser Glu Gly Ser Arg
1 5 10 15

<210> 252
<211> 11
<212> PRT
<213> Human steroid receptor coactivator 1a

<400> 252
Lys Leu Val Gln Leu Leu Thr Thr Thr Ala Glu
1 5 10

<210> 253
<211> 11
<212> PRT
<213> Human steroid receptor coactivator 1a

<400> 253
Ile Leu His Arg Leu Leu Gln Glu Gly Ser Pro
1 5 10

<210> 254
<211> 11
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<213> Human steroid receptor coactivator 1a

<400> 254
Leu Leu Arg Tyr Leu Leu Asp Lys Asp Glu Lys
1 5 10

<210> 255
<211> 8
<212> PRT
<213> Human steroid receptor coactivator 1a

<400> 255
Leu Leu Gln Gln Leu Leu Thr Glu
1 5

<210> 256
<211> 11
<212> PRT
<213> Mouse cAMP-responsive element (CREB)-binding protein

<400> 256

Gln Leu Ser Glu Leu Leu Arg Gly Gly Ser Gly
1 5 10

<210> 257
<211> 11
<212> PRT
<213> Mouse cAMP-responsive element (CREB)-binding protein

<400> 257
Gln Leu Val Leu Leu Leu His Ala His Lys Cys
1 5 10

<210> 258
<211> 11
<212> PRT
<213> Mouse cAMP-responsive element (CREB)-binding protein

<400> 258
Tyr Leu Glu Gly Leu Leu Met His Gln Ala Ala
1 5 10

<210> 259
<211> 11
<212> PRT
<213> Mouse cAMP-responsive element (CREB)-binding protein

<400> 259
Leu Leu Ala Ser Leu Leu Gln Ser Glu Ser Ser
1 5 10

<210> 260
<211> 11
<212> PRT
<213> Mouse cAMP-responsive element (CREB)-binding protein

<400> 260
His Leu Lys Thr Leu Leu Lys Lys Ser Lys Val
1 5 10

<210> 261
<211> 11
<212> PRT
<213> Human RIP140

<400> 261
Gln Leu Ala Leu Leu Leu Ser Ser Glu Ala His
1 5 10

<210> 262
<211> 11
<212> PRT
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<400> 262
Leu Leu Leu His Leu Leu Lys Ser Gln Thr Ile
1 5 10

<210> 263
<211> 11
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<400> 263
Leu Leu Gln Leu Leu Leu Gly His Lys Asn Glu
1 5 10

<210> 264
<211> 11
<212> PRT
<213> Human RIP140

<400> 264
Val Leu Gln Leu Leu Leu Gly Asn Pro Lys Gly
1 5 10

<210> 265
<211> 11
<212> PRT
<213> Human RIP140

<400> 265
Leu Leu Ser Arg Leu Leu Arg Gln Asn Gln Asp
1 5 10

<210> 266
<211> 11
<212> PRT
<213> Human RIP140

<400> 266
Val Leu Lys Gln Leu Leu Leu Ser Glu Asn Cys
1 5 10

<210> 267
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 267
Ser Ser Asn His Gln Ser Arg Leu Ile Glu Leu Leu Ser Arg
1 5 10

<210> 268
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 268
His Val Tyr Gln His Pro Leu Leu Leu Ser Leu Leu Ser Ser Glu His
1 5 10 15

Glu Ser Gly

<210> 269
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 269
His Val Glu Met His Pro Leu Leu Met Gly Leu Leu Met Glu Ser Gln
1 5 10 15

Trp Gly Ala

<210> 270
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 270
Gln Glu Ala His Gly Pro Leu Leu Trp Asn Leu Leu Ser Arg Ser Asp
1 5 10 15

Thr Asp Trp

<210> 271
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 271
Gly His Glu Pro Leu Thr Leu Leu Glu Arg Leu Leu Met Asp Asp Lys
1 5 10 15

Gln Ala Val

<210> 272
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 272
Leu Pro Tyr Glu Gly Ser Leu Leu Leu Lys Leu Leu Arg Ala Pro Val
1 5 10 15

Glu Glu Val

<210> 273
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 273
Ser Gly Trp Glu Asn Ser Ile Leu Tyr Ser Leu Leu Ser Asp Arg Val
1 5 10 15

Ser Leu Asp

<210> 274
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 274
Ala His Gly Glu Ser Ser Leu Leu Ala Trp Leu Leu Ser Gly Glu Tyr
1 5 10 15

Ser Ser Ala

<210> 275
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 275
Gly Val Phe Cys Asp Ser Ile Leu Cys Gln Leu Leu Ala His Asp Asn
1 5 10 15

Ala Arg Leu

<210> 276
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 276
His His Asn Gly His Ser Ile Leu Tyr Gly Leu Leu Ala Gly Ser Asp
1 5 10 15

Ala Pro Ser

<210> 277
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 277
Leu Gly Glu Arg Ala Ser Leu Leu Asp Met Leu Leu Arg Gln Glu Asn
1 5 10 15

Pro Ala Trp

<210> 278
<211> 19

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 278
Ser Gly Trp Asn Glu Ser Thr Leu Tyr Arg Leu Leu Gln Ala Asp Ala
1 5 10 15

Phe Asp Val

<210> 279
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 279
Pro Ser Gly Gly Ser Ser Val Leu Glu Tyr Leu Leu Thr His Asp Thr
1 5 10 15

Ser Ile Leu

<210> 280
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 280
Gly Ser Glu Pro Lys Ser Arg Leu Leu Glu Leu Leu Ser Ala Pro Val
1 5 10 15

Thr Asp Val

<210> 281
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 281
His Pro Thr His Ser Ser Arg Leu Trp Glu Leu Leu Met Glu Ala Thr
1 5 10 15

Pro Thr Met

<210> 282
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 282
Val Glu Ser Gly Ser Ser Arg Leu Met Gln Leu Leu Met Ala Asn Asp
1 5 10 15

Leu Leu Thr

<210> 283
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 283
Trp Glu Glu His Ser Gln Met Leu Leu His Leu Leu Asp Thr Gly Glu
1 5 10 15

Ala Val Trp

<210> 284
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 284
Pro Val Gly Glu Pro Gly Leu Leu Trp Arg Leu Leu Ser Ala Pro Val
1 5 10 15

Glu Arg Glu

<210> 285
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 285
Met Ser Trp Tyr Glu Phe Met Thr Glu Glu Ser Met
1 5 10

<210> 286
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 286
Ala Lys His Asp Leu Ser Trp Tyr Glu Phe Leu Gln Leu Pro Ile
1 5 10 15

<210> 287
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 287
Ser Arg Leu Ser Trp Trp Glu Phe Leu Gly Ala Ser Asp Cys Gly Thr
1 5 10 15

Cys

<210> 288
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 288
Asp Leu Leu Ser Leu Lys Glu Phe Leu Ala Thr
1 5 10

<210> 289
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 289
Ser Ser Pro Asn Leu Leu Thr Leu Glu Glu Phe Leu Ser
1 5 10

<210> 290
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 290
Lys Thr Tyr Ser Leu Tyr Glu Phe Leu Glu Leu
1 5 10

<210> 291
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 291
Met Ser Asn Arg Tyr Thr Ile Tyr Glu Phe Leu Asn Leu His Ser
1 5 10 15

<210> 292
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 292
Leu His Trp Trp Glu Val Leu Ala Glu Lys
1 5 10

<210> 293

<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 293
Ser Ser Pro Gln Pro Leu Leu His Trp Trp Glu Met Met Thr Glu Pro
1 5 10 15

Pro

<210> 294
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 294
Ser Arg Ala Gly Glu Ser Val His Trp Trp Glu Val Leu
1 5 10

<210> 295
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 295
Arg Ala Gly Pro Ser Glu His Trp Trp Glu Tyr Ile Ala Thr Leu
1 5 10 15

<210> 296
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 296
Glu Met Ile Ser Trp His Gln Tyr Leu Leu Ser Ile Glu Asn Asn
1 5 10 15

<210> 297

<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 297
Ser Ser Leu Arg Trp Asp Glu Phe Leu Met Glu Leu Gly Gly Gly Val
1 5 10 15

Ala

<210> 298
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 298
Val Pro Trp Trp Val Trp Leu Ala Glu Gly Asp
1 5 10

<210> 299
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 299
Ser Arg Glu Ile Tyr Trp Trp Asp Trp Leu Thr Asp Thr
1 5 10

<210> 300
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 300
Phe Gly Ser Asn Met Leu Asp Leu Pro Thr Phe Leu Asp Trp Leu
1 5 10 15

<210> 301

<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 301
Ser Arg Ile Thr Phe Trp Glu Leu Met Leu Glu Gly Gly
1 5 10

<210> 302
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 302
Ser Arg Thr Pro Tyr Glu Trp Leu Gly Tyr Trp Gly Ala
1 5 10

<210> 303
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 303
Tyr Asp Met Cys Thr Trp Leu Glu Phe Leu Asp Gly Gly Glu Cys
1 5 10 15

<210> 304
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 304
Ser Pro Leu Cys Thr Trp Ala Glu Tyr Leu Met Glu Pro Ser Cys
1 5 10 15

<210> 305
<211> 15
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 305
Thr Gln Trp Cys Thr Trp Ala Glu Phe Leu Ser Ser Thr Asp Cys
1 5 10 15

<210> 306
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 306
Ser Ser Asp Gly Cys Thr Trp Gln Glu Phe Leu Ala Gly His Gly Pro
1 5 10 15

Cys

<210> 307
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 307
Pro Phe Asn Asn Pro Pro Trp Met Trp Trp Ser
1 5 10

<210> 308
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 308
Ser Ser Pro Thr Val His Glu Asn Leu Pro Pro Trp Leu Trp Trp Ser
1 5 10 15

Pro

<210> 309

<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 309
Leu Ile His Val Pro Pro Trp Ala Trp Tyr Asp
1 5 10

<210> 310
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 310
Gly Phe Asp Val Pro Pro Trp Tyr Trp Asp Phe
1 5 10

<210> 311
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 311
Tyr Ser Gln Val Phe Gly Asp Ala Pro Val Trp Ala Trp Tyr Ser Ser
1 5 10 15

Arg

<210> 312
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 312
Trp Thr Pro Ser Asp Trp Gln Trp Trp Arg Ser Lys
1 5 10

<210> 313
<211> 17

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 313
Ser Ser His Trp Ser Ser Asp Ser Ile Phe Pro Gly Phe Trp Tyr Ser
1 5 10 15

Gly

<210> 314
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 314
Ser Arg Gly Gly Val Asp Leu Asp Ile Gly Asn Ser Ala
1 5 10

<210> 315
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Arbitrary peptide

<400> 315
Glu Gly Glu Asp Val Arg Thr Arg Ile Ala Asn
1 5 10

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	**ART UNIT: 1627**
PAIGE et al	)	Examiner: T. Wessendorf
Appln. No.: 09/429,331	)	Washington, D.C.
Filed: October 28, 1999	)	February 27, 2001
For: METHOD OF PREDICTING THE ABILITY OF COMPOUNDS TO MODULATE THE BIOLOGICAL ACTIVITY OF RECEPTORS	)	Atty.Docket: PAIGE=1D

SUPPLEMENTAL RESPONSE TO "SEQUENCE LISTING" REQUIREMENT

Honorable Commissioner of Patents
Washington, D.C. 20231

Sir:

Supplementing the response filed February 20, 2001, please further amend the application as follows:

IN THE SPECIFICATION

At page 162, line 34, replace "K = C or T" with --K = G or T--.

Please replace the present page 237 with the enclosed substitute page, which provides SEQ ID NOs:316-360 for the sequences on this page. If there was no page numbered "237" in the application as filed, please insert this page between pages "236" and "238".

The enclosed "Sequence Listing" pages 1, 4 and 79-90 replace pages 1, 4 and 79 of the "Sequence Listing" submitted February 20, 2001.

REMARKS

1. At the time the February 20, 2001, response was prepared, counsel's file copy of the specification was missing page 237. Hence, the sequences appearing on that page were not incorporated into the Sequence Listing filed on that date.

Since counsel received a postcard receipt (copy enclosed) acknowledging the filing of a 293 page specification, counsel assumes that page 237 was missing only from counsel's file copy and not from the original filed with the PTO.

If counsel is mistaken, inserting page 237 at this time does not constitute the addition of "new matter". At page 1, lines 3-10, it is stated:

> This application is a continuation-in-part of PCT/US99/06664, filed March 26, 1999, which is a continuation-in-part of 60/115,345, filed January 8, 1999, which is a continuation-in-part of Paige et al., Serial No. 60/099,656, filed September 9, 1998, which is a continuation-in-part of Paige et al., Serial No. 60/082,756, filed April 23, 1998. All of the above applications are hereby incorporated-by-reference.

Page 237 of this application sets forth Table 1, and part of Table 2. It is identical to page 152 of the above-identified, incorporated-by-reference PCT application. Hence, even if inadvertently omitted from this application as filed, it can be provided without adding "new matter".

2. At page 162, we correct an obvious typographical error in the identification of ambiguous nucleotide "K", which denotes "G" or "T", not "C" or "T". See MPEP §2422, page 2400-20, Table 1. The NNK codon, specified at page 162, line 33, encodes all 20 amino acids. If the third position were C/T (Y), instead of G/T (K), then Met (ATG), Trp (TGG), Ser (TCA, TCG), Gln (CAA, CAG), Lys (AAA, AAG) and Gly (GAA, GAG) would not be encoded, inconsistent with the identification of X in LXXLL (page 162, line 29) as "any AA". This error was also corrected on page 4 of the Sequence Listing at <223> in SEQ ID NO:14.

3. Applicants hereby submit the following:

[XX] an amendment to the paper copy of the "Sequence Listing" submitted on February 20, 2001, the amendment being in the form of substitute pages 1 and 79 and new pages 80-90;

[XX] the Sequence Listing in computer readable form, complying with §1.821(e) and §1.824, including, if an amendment to the paper copy is submitted, all previously submitted data with the amendment incorporated therein;

[XX] 4. The description has been amended to comply with §1.821(d).

In re Appln. No. 09/429,331

5. The undersigned attorney or agent hereby states as follows:

(a) this submission is not believed to include new matter [§1.821(g)];

(b) the contents of the paper copy (as amended, if applicable) and the computer readable form of the Sequence Listing, are believed to be the same [§1.821(f) and §1.825(b)];

(c) if the paper copy has been amended, the amendment is believed to be supported by the specification and is not believed to include new matter [§1.825(a)]; and

Respectfully submitted,

BROWDY AND NEIMARK
Attorneys for Applicant(s)

By: _____
Iver P. Cooper
Registration No. 28,005

IPC:al
624 Ninth Street, N.W.
Washington, D.C. 20001
Telephone No.: (202) 628-5197
Facsimile No.: (202) 737-3528
F:\,N\Nova\PaigalD\Pto\SequenceResponse.doc

Enclosures:
Paper Sequence Listing pp. 1,4 and 79-90
Substitute CRF
Substitute page 237
Page 152 of PCT/US99/06664
Copy of stamped postcard receipts

1 of 2

FILED: 28 October 1999

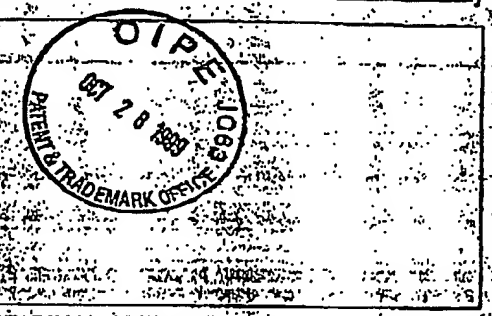
APPLICANT(S): PAIGE et al.

DOCKET NO.: PAIGE=10 (Nova)

[PARENT CASE:]

THE PATENT AND TRADEMARK OFFICE STAMP HEREON ACKNOWLEDGES RECEIPT OF THE ABOVE-IDENTIFIED APPLICATION, INCLUDING THE FOLLOWING PAPERS:

- ☐ FEES $ _____ (CH. # _____)
- ☐ RULE 60 CONTINUATION, WITH:
  - ☐ COPY OF ORIGINAL APPLICATION (_____ pages)
  - ☐ COPY OF ORIGINAL DECLARATION
  - ☐ COPY OF ORIGINAL DRAWINGS (if any) (_____ sheet(s))
- ☐ RULE 60 DIVISIONAL, WITH:
  - ☐ COPY OF ORIGINAL APPLICATION (_____ pages)
  - ☐ COPY OF ORIGINAL DECLARATION
  - ☐ COPY OF ORIGINAL DRAWINGS (if any) (_____ sheets)
- ☐ RULE 62 (Abandon Parent) ☐ CONTINUATION ☐ DIVISIONAL ☐ CONTINUATION-IN-PART
- ☐ INT'L PCT. APPLN. (_____ pages)
  - ☐ APPT. OF AGENT ☐ FEE CALCULATION SHT.
- ☐ U.S. NAT'L PHASE OF INT'L APPLN. (_____ pages)
- ☐ OTHER _____



- ☒ NEW ORIGINAL APPLICATION
  - ☒ 282 pages
- ☐ CONTINUATION-IN-PART
- ☐ DESIGN APPLICATION
- ☐ PLANT PATENT APPLICATION
- ☒ 29 SHEETS OF DRAWINGS 21 FIG(S)
- ☒ TRANSMITTAL LETTER
- ☐ PRELIMINARY AMENDMENT
- ☐ SMALL ENTITY STATEMENT(S)
- ☐ INFORMATION DISCLOSURE
- ☐ PRIORITY DOCUMENT(S)
- ☒ ASSIGNMENT
- ☐ DECLARATION

Initials: BCS

B&N-4

2 of 2

FILED: 28 October 1999

APPLICANT(S): PAIGE et al.

DOCKET NO.: PAIGE=10 (Nova)

[PARENT CASE:]

THE PATENT AND TRADEMARK OFFICE STAMP HEREON ACKNOWLEDGES RECEIPT OF THE ABOVE-IDENTIFIED APPLICATION, INCLUDING THE FOLLOWING PAPERS:

- ☐ FEES $ _____ (CH. # _____)
- ☐ RULE 60 CONTINUATION, WITH:
  - ☐ COPY OF ORIGINAL APPLICATION (_____ pages)
  - ☐ COPY OF ORIGINAL DECLARATION
  - ☐ COPY OF ORIGINAL DRAWINGS (if any) (_____ sheets)
- ☐ RULE 60 DIVISIONAL, WITH:
  - ☐ COPY OF ORIGINAL APPLICATION (_____ pages)
  - ☐ COPY OF ORIGINAL DECLARATION
  - ☐ COPY OF ORIGINAL DRAWINGS (if any) (_____ sheets)
- ☐ RULE 62 (Abandon Parent) ☐ CONTINUATION ☐ DIVISIONAL ☐ CONTINUATION-IN-PART
- ☐ INT'L PCT. APPLN. (_____ pages)
  - ☐ APPT. OF AGENT ☐ FEE CALCULATION SHT.
- ☐ U.S. NAT'L PHASE OF INT'L APPLN. (_____ pages)
- ☐ OTHER _____

- ☒ NEW ORIGINAL APPLICATION
  - ☒ 282 pages
- ☐ CONTINUATION-IN-PART
- ☐ DESIGN APPLICATION
- ☐ PLANT PATENT APPLICATION
- ☒ 29 SHEETS OF DRAWINGS 21 FIG(S)
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- ☐ SMALL ENTITY STATEMENT(S)
- ☐ INFORMATION DISCLOSURE
- ☐ PRIORITY DOCUMENT(S)
- ☐ ASSIGNMENT
- ☐ DECLARATION

Initials: BCS

B&N-4

Table 1

Peptides the Bind to the Unliganded (unactivated) Estrogen Receptor

Sequence	Phage #
S R W E S P L G T W E W S R	4
S A A P R T I S H Y L M G G	48
S S W V R L S D F P W G V S R	1
S S W D R L S D F P W G V S R	2
S S W I R L R D L P W G E S R	3
S S W V L L R D L P W G S R	31
S S W V V L R D L P W G S R	29
S S C K W Y E K C S G L W S R	7
S S G I C F F W D G C F E S R	35
S R N L C F F W D D E Y C S R	41
H H H R H P A H P H T Y G G	47

Table 2

Peptides that Bind to the Estradiol Activated Receptor

Sequence	Phage #
S R A G L L S D L L E G K S R	1/2
S S R S L L R D L L M V D S R	6
S S N K L L Y N L L K M E S R	22
S S K S L L L N L L S T P S R	23
H S F P R E S L L V R L L Q G G	42
S R L E M L L R S E T D F S R	3
S R L E E L L K W G S V T S R	11
S R L E Q L L K E E F S Y S R	21
S R L E Q L L R S E P D F S R	27
S R L E D L L R A P F T T S R	28
S R L E S L L R F G Q L D S R	29
S S R L L S L L V G D F N S R	19/20
S R L E E L L L G T N R D S R	30
S R L K E L L L L P T D L S R	15
S R L E C L L E G R L N C S R	34
S S K L Y C L L D E S Y C S R	35
S R L S C L L M G F E D C S R	36
S S K L I R L L T S D E E L S R	37
S S R L M E L L Q E G Q G W S R	40
S S N H Q S S R L I E L L S R	4
S S R L W Q L L A S T D T S R	16
S S N S M L W K L L A A P S R	13/14
S S K T L W R L L E G E R S R	17
S R A G P V L W G L L S E S R	32
S S L T S R D F G S W Y A S R	5
S S W V R L S D F P W G V S R	24/25
S S E Y C F Y D S A H C S R	33
S R S L L E C H L M G N C S R	7
S S E L L R W H L T R D T S R	8
S R L E Y W L K W E P G P S R	12
S R S D S I L W R M L S E S R	31
S S K G V L W R M L A E P V S R	38/39
H S H G P L T L N L L R S S G G	41
S S A G G G A P A G S T P S R	26

Table 1

Peptides the Bind to the Unliganded (unactivated) Estrogen Receptor

Sequence	SEQ ID NO:	Phage #
S R W E S P L G T W E W S R	316	4
S A A P R T I S H Y L M G G	317	48
S S W V R L S D F P W G V S R	318	1
S S W D R L S D F P W G V S R	319	2
S S W I R L R D L P W G E S R	320	3
S S W V L L R D L P W G S R	321	31
S S W V V L R D L P W G S R	322	29
S S C K W Y E K C S G L W S R	323	7
S S G I C F F W D G C F E S R	324	35
S R N L C F F W D D E Y C S R	325	41
H H H R H P A H P H T Y G G	326	47

Table 2

Peptides that Bind to the Estradiol Activated Receptor

Sequence	SEQ ID NO:	Phage #
S R A G L L S D L L E G K S R	327	1/2
S S R S L L R D L L M V D S R	328	6
S S N K L L Y N L L K M E S R	329	22
S S K S L L L N L L S T P S R	330	23
H S F P R E S L L V R L L Q G G	331	42
S R L E M L L R S E T D F S R	332	3
S R L E E L L K W G S V T S R	333	11
S R L E Q L L K E E F S Y S R	334	21
S R L E Q L L R S E P D F S R	335	27
S R L E D L L R A P F T T S R	336	28
S R L E S L L R F G Q L D S R	337	29
S S R L L S L L V G D F N S R	338	19/20
S R L E E L L L G T N R D S R	339	30
S R L K E L L L L P T D L S R	340	15
S R L E C L L E G R L N C S R	341	34
S S K L Y C L L D E S Y C S R	342	35
S R L S C L L M G F E D C S R	343	36
S S K L I R L L T S D E E L S R	344	37
S S R L M E L L Q E G Q G W S R	345	40
S S N H Q S S R L I E L L S R	346	4
S S R L W Q L L A S T D T S R	347	16
S S N S M L W K L L A A P S R	348	13/14
S S K T L W R L L E G E R S R	349	17
S R A G P V L W G L L S E S R	350	32
S S L T S R D F G S W Y A S R	351	5
S S W V R L S D F P W G V S R	352	24/25
S S E Y C F Y D S A H C S R	353	33
S R S L L E C H L M G N C S R	354	7
S S E L L R W H L T R D T S R	355	8
S R L E Y W L K W E P G P S R	356	12
S R S D S I L W R M L S E S R	357	31
S S K G V L W R M L A E P V S R	358	38/39
H S H G P L T L N L L R S S G G	359	41
S S A G G G A P A G S T P S R	360	26

SEQUENCE LISTING

<110> PAIGE, Lisa A.
MCDONNELL, Donald P.
CHANG, Ching Yu
NORRIS, John
HAMILTON, Paul T.
FOWLKES, Dana M.
BARNETT, Tom
CHRISTIANSEN, Dale J.
BUEHRER, Benjamin

<120> METHOD OF PREDICTING THE ABILITY OF COMPOUNDS TO MODULATE THE BIOLOGICAL ACTIVITY OF RECEPTORS

<130> PAIGE1D

<140> 09/429,331
<141> 1999-10-28

<150> PCT/US99/06664
<151> 1999-03-26

<150> 60/082,756
<151> 1998-04-23

<150> 60/099,656
<151> 1998-09-09

<150> 60/115,345
<151> 1999-01-08

<160> 360

<170> PatentIn Ver. 2.0

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Gly

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